

Notice of Allowability

Application No.

10/517,309

Examiner

Maryam Monshipouri

Applicant(s)

MIRAS ET AL.

Art Unit

1656

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 9/4/2007.
2. ☒ The allowed claim(s) is/are 13-35.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date <u>11/27/07</u> . |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

An **Examiner's Amendment** to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this Examiner's Amendment was given in a telephone interview with Mr. D. J. Pereira, on 11/27/07 .

Examiner's Amendment to the Claims

In claim 13, line 2, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 13, line 5, after "75%", delete " similarity" and substitute therefor --- identity ---.

In claim 13, line 9, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 13, line 13, after "%", delete " similarity" and substitute therefor --- identity ---.

In claim 14, line 5, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 14, line 5, after "%", delete " similarity" and substitute therefor --- identity ---.

In claim 15, line 2, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 15, line 5, after "%", delete " similarity" and substitute therefor --- identity ---.

In claim 15, line 5, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 16, line 2, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 16, line 5, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

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In claim 16, line 5, after "%", delete " similarity" and substitute therefor --- identity
---.

In claim 17, line 2, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 17, line 5, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 17, line 5, after "%", delete " similarity" and substitute therefor --- identity
---.

In claim 18, line 2, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 18, line 5, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 18, line 5, after "65", delete " similarity" and substitute therefor --- identity
---.

In claim 19, line 2, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 19, line 4, after "75%", delete " similarity" and substitute therefor ---
identity ---.

In claim 19, line 5, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 30, line 4, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 33, line 2, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 33, line 5, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

In claim 33, line 6, after "SEQ ID NO:1", delete "or SEQ ID NO:3".

Examiner's Amendments to the Specification

In page 1, underneath the title insert the following:

--- This application is a 371 of PCT/FR03/01877 filed 6/19/2003, which claims priority to French Patent Application No. 02/07729 filed 6/21/2002 ---.

In page 21, lines 31-33, delete " The complete sequence of this cDNA (SEQ ID NO:2) , and also the deduced polypeptide sequence (SEQ ID NO:3) are given in figure 6." and substitute therefor the following paragraph:

--- Legend of figure 6:

The complete sequence of spinach IE41 cDNA (SEQ ID NO:2) and the deduced amino acid sequence of spinach IE41 protein (SEQ ID NO:3).---

In page 22, delete lines 16-19 and substitute therefor the following paragraph:

--- Legend of figure 7:

An alignment of *Arabidopsis* and spinach IE41 proteins with homologs from bacterium, yeast and animals. ---.

The following is an **Examiner's Statement of Reasons for Allowance**:

Claims 13-35 are directed to an intraplastid targeting polypeptide, consisting of domain A consisting of (i) amino acids 60-100 of SEQ ID NO:1, or (ii) a fragment of a protein of an inner membrane of a chloroplast envelope, said protein being recognized by an antibody directed against SEQ ID NO:1 and said fragment having at least 70-75% identity to amino acids 60-100 of SEQ ID NO:1 and when combined with domain B has plastid targeting activity;

and

a domain B located at the N-terminal end of domain A consisting of iii) a fragment of amino acids 1-59 of SEQ ID NO:1, said fragment including at least

amino acids 49-59 of SEQ ID NO:1 or iv) a fragment of a protein of an inner membrane of chloroplast envelope, said protein being recognized by antibodies directed against SEQ ID NO:1 and said fragment having at least 60-65% identity with said fragment iii) and when combined with domain A has plastid targeting activity and

a method of importing a protein of interest into plastids comprising expressing in a plant cell containing said plastids a chimeric polypeptide comprising said intraplastid-targeting polypeptide fused with said protein of interest.

Claimed intraplastid-targeting polypeptide is free of prior art. Further, the prior art does not teach or suggest preparing such specifically claimed polypeptide. Hence, said product is also non-obvious. Since said intra-plastid targeting polypeptide is both novel and non-obvious a method of use thereof as specifically claimed, is also novel and non-obvious.

Claims 13-25 are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maryam Monshipouri whose telephone number is (571) 272-0932. The examiner can normally be reached on Tues.-Fri., from 7:00 a.m to 5:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kathleene Kerr Bragdon can be reached on (571) 272-0931. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Maryam Monshipouri Ph.D.

Primary Examiner
